



ELECTRIC VEHICLE ASSOCIATION OF SAN DIEGO (EVAOSD)

An affiliate of the ELECTRIC AUTO ASSOCIATION (EAA), 2031 Ladera Ct., Carlsbad CA 92009 Ph: 760.753.2949

EVAOSD web site address: www.evaosd.com

Officers:

President	Bill Hammons	San Diego, CA	BHammon1@san.rr.com	858.268.1759
Vice President	Open			
Treasurer	Russ Lemon	Carlsbad, CA	Lemon.J.Russell@worldnet.att.net	760.753.2949
Program Chairman	Bill Hammons	San Diego, CA	BHammon1@san.rr.com	858.268.1759
Newsletter Editor	Bill Hammons	San Diego, CA	BHammon1@san.rr.com	858.268.1759
Webmaster	Russ Lemon	Carlsbad, CA	Lemon.J.Russell@worldnet.att.net	760.753.2949
Librarian & A/V	Kevin Taylor	Carlsbad, CA	kevin_roger_taylor@yahoo.com	760.804.9189

Regular Meetings: 4th Tuesday of every month (January thru November), at 7:00 pm,
Location: San Diego Regional Transportation Center, at the corner of I-15 and El Cajon Blvd.
Place: In the Autotorium
Next Meeting: Tuesday, August 23, 2005 @ 7 p.m.
Subject: DontCrush.com; RAV4 & Ranger Electric Vehicles
Speakers: Chelsea Sexton & Paul Scott from EAA & EVAOSC (Southern California)

The President's Message

For our July meeting attendance was down which I attribute to the Mayor Election. However with 29 attendees the information was increased. Ivan Workman gave us a world view of the available electric cars and solar energy. We had several guest and Kevin shared some videos. The squealing tires "burning rubber" in the parking lot were from Paul's EV.

We have several members that have renewed their dues and some that have joined our association. Thanks to Clayton Becker, Dr. Jim Burns, Paul Marshall and Dr. Rob Wilder. We depend and appreciate your support through membership. Please check your membership status and if you renew at the EAA level be sure to indicate San Diego's EVAOSD as your chapter.

For our August meeting we will be hearing for Chelsea Sexton & Paul Scott of EAA & EVAOSC in Orange County. I understand that others from EVAOSC may come down to our meeting. One name that I have heard is Phil Karn AKA EV1 Funeral Director. With the EV1 funeral I understand that DontCrush.com was formed and is involved with the

Ford Ranger Electric and the RAV4 EV. If you have a chance to check out the www.DontCrush.com website I think that you will be impressed with the content and the look.

We have been able to establish our meeting programs for September and October so we are charging ahead. For our September 27, meeting Dr. Jim Burns and Engineering students from SDSU are bringing their Enigma a bio-diesel hybrid that achieves 80 MPG & 0 to 60 MPH in 7 seconds. Then for our last daylight saving time meeting of 2005 on October 25, Keith Vansickle is bringing a small fleet of three wheel EV that his students have been working on.

I look forward to seeing you at our meeting on Tuesday, August 23, 2005 @ 7p.m. The meeting will be at the RTC (Regional Transportation Center), [in the autotorium] located on the southwest corner of the main building.

Note: If you arrive late the building may look dark and closed for business. We meet after normal business hours in the "Autotorium" and the public is welcome to attend our meetings.

Bill Hammons, President EVAoSD

The EV Grin

"EV'ers know about the grin that someone has just after driving an EV." Here are some notes for the San Diego EV Community.

Calendar of Events:

8/20 EV Awareness Day; Portland, Oregon

8/23 EVAOSD Meeting; DontCrush.com by Chelsea Sexton and Paul Scott

8/27 EBEAA Fall EV Rally in Hayward, CA

9/4 NEDRA West Coast EV drag racing Event
Woodburn, Oregon

9/16 California Hydrogen Business Council; Keynote speaker Dr. Paul MacCready, PhD; Diamond Bar, CA

9/19-23 Free Natural Gas Vehicle Institute Course; San Diego Energy Resource Center

9/25 Free One-day EV Conversion Workshop, Electro Automotive (831) 429-1989, Cupertino, CA

9/25 Noon – 4 P.M. Family Solar Energy Day – Reuben H. Fleet Science Center – San Diego, CA

9/26 Media Kick-off Event for Solar Week – Featuring Qualcomm's new 100 kW solar photovoltaic system.

9/27 Solar Workshops – San Diego Energy Resource Center

9/27 Solar Open House (Commercial) at two locations. Sanyo North America, San Diego, CA and City of Chula Vista Police Department.

9/27 EVAOSD Meeting; SDSU's Enigma (bio-diesel 80 MPG hybrid w/ 0-80 MPH in 0:07) by Dr. Jim Burns and SDSU Engineering students.

9/28 AWEA Wind Fall Symposium – La Quinta, CA

9/28 San Diego bus tour of local commercial businesses showcasing various solar technologies and applications. Two free tours starting at 7:30 A.M. & 12:30 P.M.

9/29 Solar Conference – Qualcomm Inc., San Diego, CA

9/30 Workshop; Power Purchase Agreements – San Diego Energy Resource Center

10/1 Sixth Annual Solar Homes Tour – 10 a.m. – 3 p.m. Over 25 San Diego County homes featured.

10/25 EVAOSD Meeting; Keith Vansickle and a fleet of three-wheel electric vehicles.

11/14-18 CA to Host 2005 Fuel Cell Seminar – Palm Springs, CA <http://www.fuelcellseminar.com>



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For details go to:

<http://www.sdenergy.org/ContentPage.asp?ContentID=291&SectionID=287>

Reprinting an article from EVWorld by one of our August speakers.

Why I Think GM Killed the EV1 By [Chelsea Sexton](#)

Former EV1 specialist gives her perspective on the life and death of the world's first modern electric car.

July 15, 2005

I've been toying with whether to jump into this one.... it's such a complicated and layered issue- and I'm not going to get into all of it. But I, of all people, am all for getting as much of the real story out as possible - and it's an important story.

First and foremost, it's important to understand that there's no "one GM"; it's a company of factions- if you've read "The Car That Could", you know what I mean. There are people within GM who never wanted it to happen, and there are people who, to this day, still wish the EV1 were here- I still hear from them from time to time.

It's fairly common knowledge that, in 1990, Roger Smith announced the car, and that many of the people who followed him felt it was a burden that they inherited. Others will argue that, before the mandate and while GM was poised to have the only EV on the market, they were excited about doing it; it was only when the mandate, and the inherent competition that was created by it, came to be that they became less enthusiastic about the prospect. It's also a popular adage that the quickest way to get an automaker to fight something, even the best of ideas, is to mandate that it happens- think seat belts and air bags.

So, GM and the others simultaneously set about both killing the mandate and meeting it.

To that end, we launched the EV1 in Dec. of 1996, and to look at the hype and hoopla, the GM and Saturn execs who came out, etc., you would have sworn that GM couldn't have been more behind the idea -- and some were. At the very least, there was a lot wrapped up in being the first to market, and many will argue, in terms of performance, sex appeal and passionate following, the best. And I'm sure that there were some that were curious to see where it would go in terms of mass market demand- some for pure reasons, and others out of concern for what it would mean were the car to catch on.

But here's the reason why I believe GM let the EV1 go to market in all it's cool, high performance (for the time) glory -- they didn't think it would succeed. I don't think there was initially a conspiracy theory because (overlooking the fact would have meant getting those factions all on the same page) it didn't occur to them that they'd need one.

Let's face it -- GM sent a car to market with one teaser ad and a bunch of print ads that barely showed the car and didn't tell you where to get it, and a dozen twenty-somethings that for all our Saturn-like enthusiasm and varied car experience, had never actually launched a car, let alone one with, due to GM's choice of Delphi batteries, 50-70 miles of real-world range and a lease payment of \$500. But, sometimes the best way to assure that something gets done is to suggest that it can't be done -- and we young, feisty types were just the ones to suggest that to -- we couldn't have embraced our mission more, and we had some very committed support behind us in those technicians, engineers etc. that kept the cars on the road once we put them there.

Then something remarkable happened -- we ran out of cars. It didn't happen overnight, but it happened- it became clear that the market could evolve- which is when it also became clear that the auto industry wasn't about to -- and slowly but surely, everything changed in that program.

There's no one answer as to why GM and the others killed their programs. GM wasn't alone, of course, they were just the most arrogant and defiant about doing it. Partly, the automakers are partners with the oil

because the auto industry makes 40% of their profit on parts and service -- much of which EVs don't need. People forget that, for some companies, selling cars is almost the loss leader compared to the profit on financing, aftermarket products and parts and service.

And then there's those aftermarket companies- where would Edelbrock and friends be if we all drove EVs? It's a pretty good sized industry too, and they're buddies with the OEMs. And I can argue that our grandchildren would be retired before there would be enough EVs on the road to truly impact these industries, but fear is a powerful force.

But there's also a more intangible, philosophical reasoning behind GM's reticence with the EV1. In order for an auto company to sincerely market an EV on its merits -- clean, quiet, non-polluting, doesn't contribute to oil dependence- they inherently imply that their core products are none of those things. You can't market the EV1 as clean without making it obvious that the Suburban is dirty. That is a factor that impacts their business today, and the others by extension.

Of course, many of those things could have been overcome by GM -- but that's why they call it hindsight.

Taking Turns ' - - -, _ _ _ Messages from our members . . .

Lawrence Emerson reports: Hybrids Merging on to Cal HOV Lanes...

With the President's signature on the \$286 billion federal transportation bill, the road is cleared for some California hybrid car owners to begin driving solo in carpool lanes within weeks, reports the Associated Press. State officials announced Wednesday that hybrid drivers will be allowed to start applying for decals allowing them in the lanes, surprising some backers of the change who had predicted that it might not be implemented for months. The state originally planned to wait for clean-air regulators to reconcile the state bill with the federal legislation, which supporters had said could take months. But the state Air Resources Board had time to review the state and federal legislation before Bush's signature, and decided to proceed with the change immediately, said Gennet Paauwe, a spokeswoman for the board. Only three hybrid models -Toyota's Prius and Honda's hybrid Civic and Insight - will be allowed in the lanes. They are the only models that meet the eligibility standards of at least 45 miles per gallon and almost no smog-causing emissions, according to the office of the bill's author, Assemblywoman Fran Pavley (D-Woodland Hills). California will become the second state to allow hybrids with solo drivers to use car-pool lanes. Virginia enacted the change in 2000, and Arizona, Connecticut, Georgia and Minnesota are considering it. Not everyone, including some environmental advocates, is happy. Previously, only dedicated natural gas and battery electric vehicles had been given access to the car pool lanes, an incentive meant to boost these environmentally friendly technologies. However, due to infrastructure issues and market factors, natural gas vehicles (NGVs) have primarily experienced growth only in fleets and in some transit districts, while battery electric vehicles (EVs) have virtually disappeared from the marketplace. Hybrids, however, have been blowing out the doors, exceeding manufacturers supply capabilities. Moreover, when Virginia allowed hybrids into its car pool lanes, the resulting congestion provoked a crisis. To prevent hybrids from clogging the lanes, Pavley's bill expires in 2007 and caps at 75,000 the number of hybrid vehicles that could participate. As of the end of June, there were 57,164 hybrids registered in California, though not all would be car-pool-eligible, according to the Department of Motor Vehicles. To qualify for the stickers, motorists in the San Francisco Bay Area will also have to have a FasTrak pass and transponder that allow them to drive by toll bridge booths without paying. Stopping at a toll booth would add to air pollution, state officials said. Hybrid owners can get an application for the permits from the DMV Web site or from a DMV office. -

DMV Office is not set-up to handle hybrid HOV stickers...

Larry stopped by DMV last week to apply for the Clean Air Vehicle Stickers for use on HOV/Carpool Lanes. They handed me a printout from their website and the new form which includes a box to check for "hybrids" that meets the requirements in California.

You need to fill out the form and send to the address listed on the website together with a check for \$8. The stickers are supposed to be a yellow color, but otherwise the same as the other Clean Vehicle Stickers. Except I heard there is one extra sticker for the front bumper too.

The website address with the new information and form is:

<http://www.dmv.ca.gov/forms/reg/reg1000.htm>

Dan Wolfson reports that you do not need a pickup to move a gas dryer, when an E-bike will do the job...



Stock hybrid drivers complete run for mileage mark in 2 days, 1,400 miles, that is 110 mpg with 1 tank of gasoline.

Monday, August 08, 2005 By Jacqueline Shoyeb and Moustafa Ayad, Pittsburgh Post-Gazette

Dan Kroushl punched the gas pedal in his silver Toyota Prius during the final 30 minutes of the 47-hour, 1,397-mile trip completed on a single tank of gasoline.

Kroushl was attempting to suck up the last of the battery energy and gas his car had been running on for most of the weekend.

The fuel light had been on for the past eight hours and trying to break the unofficial record for most miles per gallon set by a hybrid in Japan had become more of a headache than an astonishing feat.

Kroushl and four other middle-aged men are fuel-obsessive mileage maniacs, who drove themselves into the Internet's record pages with a jaw-dropping joy ride over a 15-mile stretch of Route 65 in Sewickley while averaging a little more than 110 miles a gallon.

"We are all running on fumes just like the vehicle," said Dave Bassage, the spokesman for the group and one of the drivers. "The only way I can describe it is it's pretty incredulous. This is so far beyond what we thought was possible." [This article & more articles are continued \(in the e-version @ evaosd.com\) after the cover for mailing.](#)



Martha Rial, Post-Gazette
Dave Bassage of Walton, W.Va., heads north on Route 65 in his Toyota Prius hybrid car.
[Click photo for larger image.](#)

Additional news items can be found on the evaosd.com website. Due to printing and mailing cost we are limited to six pages in our published publication. Additional EV news follows the page on the internet. Send comments and/or news items that you would like to see in this newsletter to bhammon1@san.rr.com.

EVAOSD Newsletter Monthly, 6 pages, covering San Diego County and Southern California
Subscription rates: \$12.50 per year (\$15 foreign, via sea mail) Additional newsletter items can be found on the E-newsletter at evaosd.com.

EAA Current Events *Bi-monthly newsletter of the Electric Auto Association*
Subscription rates: \$39 per year (\$45 foreign), includes a subscription to the EVAOSD Newsletter. Please send directly to EAA using form found at membership@eaaev.org

Current subscribers have borrowing privileges for the association's video tape and publications library. Subscribing to the newsletter is optional and is not a requirement for membership. EVAOSD meetings are always open to any and all interested parties.

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ELECTRIC VEHICLE ASSOCIATION OF SAN DIEGO (EVAOSD)
An affiliate of ELECTRIC AUTO ASSOCIATION (EAA)
2031 Ladera Ct., Carlsbad CA 92009 (619) 275.3539

ADDRESS SERVICE REQUESTED

Stock hybrid drivers complete run for mileage mark in 2 days, 1,400 miles, that is 110 mpg with 1 tank of gasoline.

The men -- Kroushl of McCandless, Bassage of Walton, W.Va., Wayne Gerdes of Chicago, Rick Reece of Greenville, S.C., and Bob Barlow from Fredericksburg, Va. -- drove continuously, stopping only to switch drivers every four hours like a NASCAR crew.

Their journey was chronicled by an HBO film crew, who recorded their every moment, even a brush at a local BP station where they were run off the property because only CBS affiliates could film at the station. And Barlow, the lawyer in the group, was pulled over by police yesterday at 2 a.m. because he was driving too slow.

In order to achieve extreme fuel economy, the team primarily used a gas-saving technique called pulse and glide. It's a form of coasting that involves releasing the gas pedal, then pressing it slightly again to disengage the electric motors. And as they glide, the drivers glance at a built-in screen displaying vital statistics like average miles per gallon.

"It's like playing a video game," said Bassage.

Using this technique, the team estimates they used the gas engine on only about 33 percent of the trip.

Kroushl's Prius finally rolled to a stop at 6:55 p.m. yesterday, five minutes short of 48 hours on the road. He drove more than 15 hours of the trip and emerged from the car drenched in sweat -- he was trying to boost fuel economy by not running the air conditioning.

But why spend a weekend driving nowhere?

The men each have their reasons, but it all boils down to two things: competition and hypermile super stardom.

"It's just a challenge," Kroushl said. "Some people want to race cars, see how fast they can go. I don't have a race car, so I'm doing the best with what I have."

Kroushl, an engineer, is the mastermind behind the almost three-day marathon.

He originally bought his Prius in January 2004 to save on gasoline, but soon afterward he began seeking out roads that could let him clock well beyond the U.S. Environmental Protection Agency's 51 highway mpg estimate.

In April, he found a smooth stretch of Route 65 where he was able to hit 100 mpg.

After more than a year's practice, Kroushl proposed his idea in online forums and discussion groups for Prius owners.

The challenge caught the attention of Reece, Gerdes and Bassage, three of the highest-reaching hypermilers on the Web.

"We're a little wacky," Bassage said. "I'm the greenie in the group, the tree hugger, and the rest are techies."

And whatever the reason for purchasing a hybrid, whether for the environment, the wallet or the technology, more Americans are turning toward the nifty electric cars.

Last year, there were 83,153 new hybrids registered in the nation, a 91 percent increase from 2003, according to R.L. Polk & Co., a Michigan-based firm that collects and analyzes automotive data.

The hybrid society is growing, but most probably won't achieve the hypermile status these hardcore hybrid owners have.

Gerdes, a nuclear plant operator, estimates about 1 percent of the public fall into the hypermile category.

"It's a trip," Gerdes said. "It can be addictive, but it also helps our environment and our oil dependency."

Brad Berman of www.hybridcars.com reports HYBRIDS GO SCHIZOID

Detroit is now gung-ho on hybrids. Toyota and Honda are opting for power over fuel economy. Consumers are confused, but are buying hybrids in record numbers. All bets are off.



Dave Cutter reports

You are here: FreeEnergyNews.com > [Directory](#) > Electric Vehicles

Electric Vehicles

Hybrids, plug-ins, all-electric, hydraulic.

Hybrids to EV



Source: pleiades-enterprises.com

- [Alternative Fuel Cars: Plug-In Hybrids and Electric Cars](#) - Some drivers are modifying their hybrids to enable plug-in charging, even though it voids the warranty.
- [Modified Prius gets up to 180 Miles Per Gallon](#) - By modifying a Prius so that it can be plugged in, Ron Gremban of [CalCars](#) claims to have gotten anywhere from 65 to over 100 miles per gallon. (*Slashdot / NY Times*; California; April 2, 2005)



Electric Vehicle Companies

Zenn

- [A study in Zenn](#) - All-electric vehicle. Low speed urban car. Six hours to recharge. 60 km range, 40 kph speed. Cheaper and more efficient than combustion systems. To market in U.S. Oct. Nov. 2005. (*DiscoveryChannel.ca*; May 4, 2005)
- [ZAP Electric Car](#) - All electric, highway speeds compatible, 200 miles between charges.
- [Feel Good Cars All-Electric ZENN Now Available](#) - ZENN stands for "Zero Emissions No Noise". Designed for around-town driving, it has a maximum speed of 25 mph with range of 30-40 miles. Full charge after six hours on a standard 110-volt outlet. Three hours gives it a 80% charge. (*PESWiki*; Jan. 14, 2005)



video

Other Electric Vehicles

- [Test-driving the Eliica](#) - Japan' electric lithium ion battery car, fitted with 320 batteries can jump from 0 to 100 km/h in just four seconds. Hoping to manufacture 200 in 2007. (*DiscoveryChannel.ca*; March 22, 2005)
- [Electric Racer](#) - Raser is "showing that ac-induction motors (500 HP) can take on pricier permanent magnet motors in transportation applications that need to pack lots of torque in a small space without turning up the heat". (*Design News*; June 6, 2005)



video





- [Green snowmobile](#) - Check out the competition at the Clean Snowmobile Challenge, hosted recently at the Michigan Technological University. See why these snowmobiles are sweeping the industry with a storm. (*Discovery.ca*; March 29)



- [Mitsubishi to start selling electric cars](#) - Will run on lithium-ion batteries. "An attempt to showcase its technological prowess and fix its battered brand image." Coming in 2010. (*Canoe.ca*; May 11)



- [2005 Tour de Sol skirts 100 mpg](#) - Over 60 hybrid, electric and biofuel vehicles from throughout the U.S. and Canada demonstrated that we have the technology today to power our transportation system with zero-oil consumption and zero climate-change emissions. (*PESN*; May 22, 2005)

Electric, Plug-in Hybrid Car Movement Is Growing

Source: [Star-Telegram](#)
[Aug 15, 2005]

SYNOPSIS: Plug-in hybrids aren't yet cost-efficient, but some of the dozen known experimental models have gotten up to 250 mpg.

Politicians and automakers say a car that can reduce greenhouse gases and help free America from its reliance on foreign oil is years or even decades away.

But Ron Gremban says such a car is parked in his garage.

It looks like a typical Toyota Prius hybrid, but in the trunk sits an 80-mile-per-gallon secret -- a stack of 18 brick-sized batteries that boosts the car's high mileage with an extra electrical charge so it can burn even less fuel.

Gremban, an electrical engineer and committed environmentalist, spent several months and \$3,000 tinkering with his car.

Like all hybrids, his Prius increases fuel efficiency by harnessing small amounts of electricity generated during braking and coasting. The extra batteries let him store extra power by plugging the car into a wall outlet at his home in this San Francisco suburb -- all for about a quarter.

He's part of a small but growing movement. "Plug-in" hybrids aren't yet cost-efficient, but some of the dozen known experimental models have gotten up to 250 mpg.

They have support not only from environmentalists but also from conservative foreign-policy hawks who say Americans fuel terrorism through their gas guzzling.

And while the technology has existed for three decades, automakers are only beginning to take notice.

So far, only DaimlerChrysler has committed to building plug-in hybrids, quietly pledging to make up to 40 vans for U.S. companies. But Toyota Motor Corp. officials who initially frowned on people altering their cars now say they may be able to learn from them.

"They're like the hot rodders of yesterday who did everything to soup up their cars," said Cindy Knight, a Toyota spokeswoman. "Maybe the hot rodders of tomorrow are the people who want to get in there and see what they can do about increasing fuel economy."

car runs out of power from the batteries and switches to the standard hybrid mode, it gets the typical Prius fuel efficiency of around 45 mpg. As long as Gremban doesn't drive too far in a day, he says, he gets 80 mpg.

Backers of plug-in hybrids acknowledge that the electricity to boost their cars generally comes from fossil fuels that create greenhouse gases, but they say that process still produces far less pollution than oil. They also note that electricity could be generated cleanly from solar power.

Gremban rigged his car to promote the nonprofit CalCars Initiative, a San Francisco Bay-area-based volunteer effort that holds that automakers could mass-produce plug-in hybrids at a reasonable price.